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Minneapolis, Minnesota 55401-1993

September 19, 2008

The Honorable Steve M. Mihalchick
Office of Administrative Hearings
600 North Roberts Street
P.O. Box 64620
St. Paul, Minnesota 55164-0620

—VIA ELECTRONIC FILING—

Re: Extended Power Uprate at the Monticello Nuclear Generating Plant--
Environmental Assessment
Docket Number E002/CN-08-185 (Certificate of Need)
Docket Number E002/GS-07-1567 (Site Permit)

Dear Judge Mihalchick:

This letter is in response to the September 3, 2008 comments provided by Mr. Ronald Wieland of the Minnesota Department of Natural Resources ("DNR") in regards to the Department of Commerce, Office of Energy Security's ("OES") Environmental Assessment ("EA") of the proposed extended power uprate at the Monticello Nuclear Generating Plant ("MNGP" "Monticello" or the "Plant"). The EA was issued by the OES on July 31, 2008 in the above-referenced dockets. Our response will hopefully provide some additional information and clarification of the issues raised by the DNR's letter.

As a manager within Xcel Energy's Environmental Services group, I supervise the biologists who have conducted the environmental studies at MNGP. Our department has conducted extensive studies documenting the diversity of aquatic wildlife around the Plant and monitoring the thermal discharge from the Plant and its effects on the river over the years. Our workgroup is responsible for compiling and reporting on the data collected; interfacing with the DNR and the Minnesota Pollution Control Agency regarding the reports; and providing professional input on proposed changes at the Plant to help minimize current and future environmental impact.

We concur with Mr. Wieland's general comments that well over 30 years of "carefully monitored" experience and documentation of the operation of MNGP indicates that there have been no substantial negative effects on the fish population or other aquatic resources in the affected reach of the Mississippi. We also concur that we have

enjoyed a strong working relationship with the DNR and other agencies cooperating on monitoring this section of the Mississippi River for many years.

The DNR's September 3 comments are directed to specific sections of the Environmental Assessment prepared by the OES. Our response provides additional information on the areas of concern or interest raised by the DNR.

Biological Resources (Aquatic) (Section 5.2, page 33 of the EA)

Increase in Rejected Heat. While we appreciate the DNR's attention to this matter, the suggestion that this project will lead to a continuous 12 percent increase in rejected heat is a bit out of context.

The 12 percent increase in rejected heat is not a year-round increase. It is the maximum that could occur, and it would only occur when the Plant is operating without any cooling towers in service. This mode of operation is allowed and commonly occurs from about September to May of each year. With the existing cooling towers in service, the temperature increase for water being returned to the river will be reduced substantially and in every instance will stay within Monticello's National Pollutant Discharge Elimination System ("NPDES") permit limits.

Additional Heat Load. As described in the EA, the potential maximum additional heat load resulting in a 4.5° F increase is an operating parameter within current limits of Minnesota Pollution Control Agency's ("MPCA") NPDES permit thresholds on permissible thermal limits for cooling water discharges. This permitted, incremental heat load does not require the installation of new cooling tower capacity - either "wet" cooling or the referenced "dry cooling tower." MNGP has established procedures and has a successful history of ensuring the Plant meets the permitted thermal limits by using current cooling capabilities. The current cooling capabilities of the Plant are sufficient to continue operation of the Plant post power uprate within the existing permit terms.

Environmental Monitoring. Xcel Energy has a long record of thorough, high-quality environmental monitoring at Monticello. In 1995, as part of our reapplication for the NPDES permit, we requested approval for reducing the frequency of certain fishery studies. As part of that process, the MPCA and DNR accepted a reduction in sampling from eight times a year to four times per year on the basis that the more frequent fish survey schedules that had been followed for many years did not yield any more reliable or better statistical information about the nature and health of the fish population than would less frequent sampling. In addition, the reduction in fish surveys provided a corresponding decrease in stress on the affected fish

populations due to the corresponding reduction in the use of the electro-fishing survey technique.

We are committed to maintaining a high-quality monitoring program. We would be glad to meet with the DNR to discuss the basis and benefits for revisiting the type and frequency of aquatic surveying. However, we do not believe the frequency of fishery studies has any direct bearing or relevance in this proceeding.

Cold Shock Events. The DNR indicates that the cold shock events are related to the scheduled and unscheduled shutdowns of MNGP. In actuality, and as noted in the EA, the incidents of scheduled and unscheduled shutdowns are independent of and technically unrelated to the proposed power uprate. In the case of scheduled shutdowns, (such as for refueling), discharge water temperatures are gradually reduced to minimize cold shock. Contrary to the impression raised in this section of the DNR's letter, the cold shock events have been isolated and generally quite limited in nature.

The fish mortality cited in 2007 was due to a combination of very unusual events. This mortality was caused by the first unplanned shutdown of the Plant in five years from a power level high enough to result in a potential for significant thermal shock. That shutdown happened to occur during the winter when cooling towers are out of service, as allowed by the NPDES permit, and at a time of extremely low river flow. (The river level was lower than it was at the time of this event only twice in the last 20 years.) The unplanned shutdown in 2007 occurred during a period when river temperatures were 32° F and unusually low-river flow resulted in a larger portion of the river being impacted by the site's thermal discharge. Due to this "perfect storm" of events, an unusually large number of fish were affected. Pursuant to Minn. Stat 115.071 sub (3) and the mitigation formula, Xcel Energy paid approximately \$5,900 to the State of Minnesota as reimbursement for the affected fish.

Thermal Plume. As established in the Clean Water Act ("CWA") Section 316(a) demonstration and as concluded from the thermal plume studies conducted after the construction of the discharge canal weir, alterations of aquatic communities have been limited to a small area directly downstream of the Plant. The extent and nature of the thermal plume has been well studied, and the biological diversity of the river may have been enhanced by the thermal inputs during various times of the year. Research indicates that even during worst-case years, the thermal plume is largely restricted to one side of the river, disperses rapidly, and is not a barrier to fish movement.

Additional "Dry Cooling Tower Capacity" Vs. Environmental Monitoring Programs. We do not believe there is any relationship between these two issues. As noted above, current

plant facilities and procedures meet all applicable permits and standards. After the power uprate, the Plant will continue to conform to all permits and limits without additional cooling towers, wet or dry.

Additionally, the dry cooling towers suggested by the DNR are very expensive to install and operate and are not as efficient as wet cooling towers. Considering the design flow rate at Monticello, a new dry cooling tower with a capacity of approximately 80,000 gallons per minute (gpm) would be required to achieve a 5° F reduction. The cost of the 80,000 gpm dry cooling tower would be approximately \$18 million. The operating cost of a dry cooling tower is also significantly higher than that of a wet cooling tower (approximately 175% higher). The dry cooling tower would add a significant electrical load and increase operating and maintenance costs by about \$1 million annually. In addition, the construction footprint of a new cooling tower is such that it may impact currently undisturbed areas on the plant site – something our current project will not do.

The significant increase in capital and operating and maintenance costs for an additional dry cooling tower are not warranted. After power uprate, we will continue to operate the Plant within all the existing permit levels.

Unrelated to this project, a rulemaking proceeding is underway that could directly affect Monticello's cooling towers. The final rules associated with CWA Section 316(b) could significantly impact the optimum cooling tower solution. Monticello has been considering options for compliance with 316(b) and has completed the baseline monitoring required by the rule prior to the U.S. Environmental Protection Agency suspending the rule. Specific plans for compliance with 316(b) will not be fully developed until the EPA reissues the rules, presumably after litigation on the Phase II portion of the rules is concluded with the U.S. Supreme Court. Thus, any significant change involving cooling towers is premature, and any additional cooling tower costs are not necessary for us to remain within the limits of our existing permits.

Biological Resources (Rare and Unique Natural Resources)

Biological Resources (Avian). As noted by the DNR, an error was inadvertently made in our Site Permit in not referencing the Peregrine Falcon as a state-listed threatened species, rather than a species of special concern. In addition, while the listing of the Trumpeter Swan might seem “recent” relative to their having disappeared in the 1880's, the "threatened" status of the Trumpeter Swan should probably not have been characterized as "recent," as this designation dates to 1996.

It is an established fact that the effect of the thermal plume at the Plant creates a winter open water zone that attracts Trumpeter Swans. The cause of the significant

increase in the number and concentration of the birds that is of concern to the DNR, however, is due to multiple events occurring that attract and retain the birds in the area. One significant issue that contributes to the swans “wintering” in the area is the presence of food. Local citizens and the DNR have provided a food source for the birds that encourages them to remain in the area during the winter. Arguably, the wintering birds might migrate further south absent the readily accessible food source.

Biological Resources (Terrestrial). The DNR’s comments correctly note the Wild and Scenic status of the Mississippi River and the valued nature of habitat along this entire corridor. However, as stated in the EA, the power uprate project will take place entirely within the existing plant boundaries and facilities. No additional land will be impacted by the project; thus the project will not have any effect on this habitat.

We applaud the local efforts to promote environmental health through habitat restoration and bioenergy projects. Xcel Energy is a strong supporter of alternative energy and participated in a number of biomass projects as a company and through the Renewable Development Fund. If the DNR has specific ideas on how we can participate in the local efforts, we encourage the agency to contact us to discuss their ideas. Xcel Energy can discuss participation through cooperative agreements or through potential participation via a grant to the Renewable Development Fund. However, the discussion is not relevant to this proceeding, as the power uprate project will not impact the biological resources surrounding the Plant.

Summary

We thank the DNR for their comments on the Environmental Assessment as prepared by the Office of Energy Security. We look forward to a continued cooperative working relationship with the DNR on issues related to the Monticello Nuclear Generating Plant. We offer these reply comments to assist in the development of a complete and accurate environmental record in this docket.

Please contact me at (612) 330-6278 or by email at Patrick.Flowers@xcelenergy.com if you have any questions about this response.

SINCERELY,

/s/

PATRICK FLOWERS, CSP, CHMM
MANAGER, WATER QUALITY

Attachments

cc: Ronald Wieland, DNR
William Storm, OES
Service Lists

CERTIFICATE OF SERVICE

I, Carole Wallace, hereby certify that I have this day served copies of the foregoing document or a summary thereof on the attached lists of persons.

xx by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States Mail at Minneapolis, Minnesota

xx via e-mail

xx electronic filing

DOCKET No. E002/CN-08-185

DOCKET No. E002/GS-07-1567

Dated this 19th day of September 2008

/s/

Carole Wallace
Regulatory Coordinator

In the Matter of Xcel Energy's Certificate of
Need Petition - Monticello Nuclear Generating
Plant for Extended Power Uprate
OAH 12-2500-19613-2

EF = Efile

E002/CN-08-185 9-3-08

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In the Matter of Xcel Energy's Petition for a Site
Permit for the Monticello Nuclear Generating Plant
for Extended Power Uprate

E002/GS-07-1567
8-6-2008

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